

The GLOBE Program in Trinidad and Tobago 1996-2007: A Case of Sustainable Support, Challenges in Curriculum Integration and Implementation and Innovative Outreach Programmes

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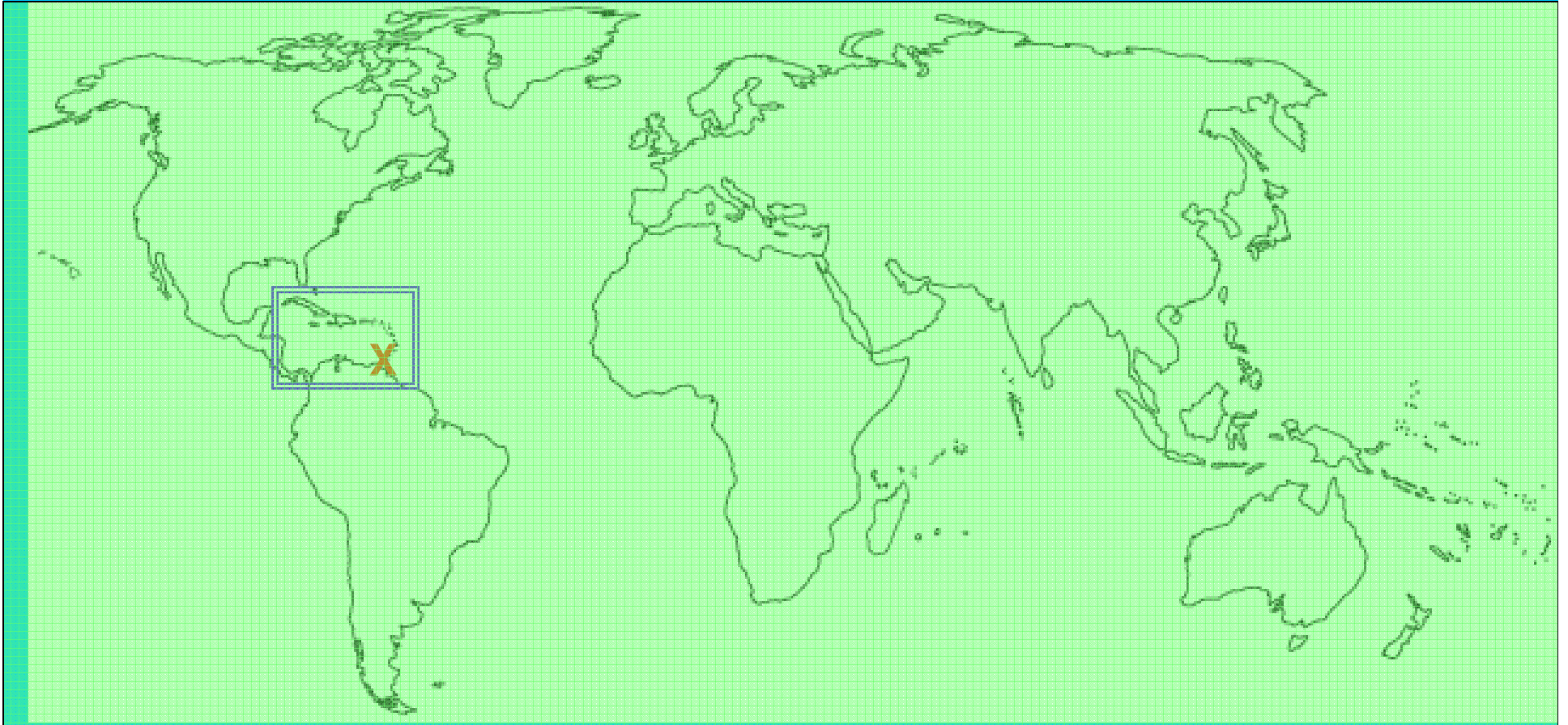


STRAND 1D PRESENTATION

In this presentation you would be introduced to:

- **GLOBE Program Milestones in Trinidad and Tobago**
- **Sustainability Initiatives in the GLOBE Program**
- **Challenges to integration of GLOBE**
- **GLOBE Outreach Programmes: Popularization, Captive Audiences, Research Projects**
- **A Successful School Implementation of the GLOBE Program**





TRINIDAD AND TOBAGO

Latitude: $10^{\circ} 2' - 11^{\circ} 12' \text{ N}$; Longitude: $60^{\circ} 30' - 61^{\circ} 56' \text{ W}$





GLOBE Program in T&T 1996-2007 -Milestones

- **Program introduced to T&T in April 1996**
- **Country Coordinator trained in Nov 96**
- **Meeting of GLOBE Partners held in March 97**
- **Teachers Union Industrial Action starts in early 97**
- **First training workshop held & 5 secondary schools given GLOBE Kits by EMA in Aug 97**
- **First GLOBE school sends data in Oct 97**
- **Petrotrin, Amoco, Rotary Club & RBTT join as GLOBE Partners: 10 GLOBE kits given to secondary schools in June 98**
- **Second GLOBE School sends data in Feb 99**
- **Primary Schools invited to GLOBE Training in Dec 2000**
- **Waterloo Presbyterian Primary School submits data in 2001**



GLOBE Program in T&T 1996-2007–Milestones Cont'd

- **Training for Tobago schools starts in 2001**
- **Training for student's empowerment in 2001**
- **Training Colleges join the GLOBE Program in 2002**
- **Sensitization to GLOBE Program introduced to UWI School of Education in 2002**
- **GLOBE Program Training continues in Trinidad and Tobago in 2003**
- **BG T&T joins GLOBE Program as Partner in 2004**
- **Morvant Gov't Primary joins GLOBE Program in 2004**



GLOBE Program in T&T 1996-2007 -Milestones

- **Arima Gov't Secondary successfully pilots GLOBE Program in 2005**
- **GLOBE School wins Major Environmental Award in 2005**
- **Secondary schools interest in GLOBE Program enkindled by introduction of Environmental Science as an Advanced Level Subject option in 2005**
- **First Environment Camp organised and Brazil High School joins GLOBE in 2006**
- **GLOBE Outreach Programme starts and YTC introduced to GLOBE Program in 2006**
- **Maximum Security Prison requests participation in GLOBE Program in 2007**
- **New implementation Strategy and Management Structure for GLOBE Program to be introduced in 2007**



SUSTAINABILITY ELEMENTS INTRODUCED IN GLOBE PROGRAM

- **Provision of sponsored GLOBE kits**
- **Training of students with teachers**
- **School-based orientation of staff**
- **Introduction of GLOBE Program in Teachers Colleges**
- **Action Plan to guide Implementation introduced**
- **Identification of school support through further sensitisation by lead teacher**
- **Auditing of GLOBE Program by Partners**
- **Community outreach programmes developed**



GLOBE OUTREACH PROJECTS:

GLOBE INCARCERATED

- **Introduction of GLOBE Program to inmates in the YOUTH TRAINING CENTRE (May 2006),MAXIMUM SECURITY PRISON and GOLDEN GROVE PRISON**
- **Development of Science, Numeracy and Literacy skills among inmates using the GLOBE Program**
- **Facilitation of Prison Reform through involvement of inmates in hands-on activities of GLOBE Program**
- **Leadership training of inmates**
- **Provision of Resource materials for Mastery of skills & Train the Trainer for sustainability**



GLOBE OUTREACH PROJECTS:

- **Popularization of science through exhibitions in malls/promenades**
- **Integration of GLOBE Program in school curriculum**
- **GLOBE Environment Camp**
- **Cell Tower Radiation Levels**
- **Youth Organisations Involvement**



SUCCESSFUL IMPLEMENTATION MODEL

Critical Steps

- **Orientation Phase: Principal and staff briefed on GLOBE Program**
- **Lead teacher and principal trained**
- **School support identified through sensitisation by lead teacher**
- **Development of an Action Plan by School Team**
- **Students exposed to GLOBE through displays and demonstrations**
- **Interested students identified and groups formed**
- **Group leaders train members after being trained**
- **Action Plan executed in a highly supportive atmosphere**



IMPLEMENTATION MODEL CONT'D

Critical Steps

- Formation of groups and identification of group leaders
- Training of group leaders
- Training of group members by group leaders
- Sourcing of community support
- Sustainability of project
- School-based training and support



Outcomes of a Successful School Implementation of GLOBE Program

- **Improved staff relations**
- **Integration of GLOBE Program in school curriculum**
- **Development of leadership qualities in students**
- **Improved delivery of school curriculum**
- **Positive impact on school climate**
- **Greater parental and community involvement in school affairs**
- **Generation of interest in science**
- **Nurturing of stewardship of the environment**



A SUCCESSFUL IMPLEMENTATION OF THE GLOBE PROGRAM AT A SECONDARY SCHOOL: GUIDELINES

- **Principal and Teacher attend training**
- **Administrative support identified**
- **Sensitization of staff by trained teacher**
- **Other teachers join programme**
- **Action Plan developed**
- **Implementation committee formed**
- **Orientation of students**
- **Identification of interested students**
- **Establishment of environmental club**



A SUCCESSFUL IMPLEMENTATION OF THE GLOBE PROGRAM AT A SECONDARY SCHOOL:GUIDELINES CONT'D

- **Training of group leaders and members**
- **Identification of skills**
- **Parental involvement invited**
- **Preparation of GLOBE site**
- **Managing GLOBE measurements on weekends**
- **Data Display Board Installation**
- **GLOBE Identity**
- **Curriculum Integration**
- **Organisation for GLOBE Field Trips**
- **Capacity Building and Succession Planning**



PLANNING ACTIVITIES

- **Determination of activities and timelines**
- **Role of school coordinating teacher in project**
- **Work-breakdown structure for project**
- **Identification of responsible agent for each deliverable**
- **Community involvement**
- **Sustainability of project**
- **Adoption of Primary School in the area**
- **School outreach programme**



GUIDELINES to Implementation of GLOBE Program

- **Preparation of Budget from Action Plan**
- **Allocation of responsibility for each group for funding**
- **Managing the fund raising activities of groups**
- **Liaising with the school principal, CC and GLOBE Program Stakeholders**
- **Audited Report on Fund Raising**



GLOBE Research Project Radiation Levels of Cell Towers

- **Collaborative Project with the University of the West Indies to determine the levels of radiation emission from cell towers/phones.**
- **GLOBE Program Sun photometric measurements re: global warming**



ROLE OF COMMITTED TEACHER



CELL TOWER RADIATION LEVELS



INTEREST IN GLOBE Program



WEATHER STATION



LEARNING SCIENCE BY DOING



Conclusion

**SUCCESS IN IMPLEMENTING the
GLOBE Program is related to**

- **The support of school management.**
- **The commitment of teachers to the program.**
- **The preparation of a GLOBE action plan in which all key stakeholders in education contribute.**
- **Preparation and guidance of student leaders.**
- **The training of students alongside their teachers.**

CONCLUSION

SUCCESS IN IMPLEMENTING GLOBE Program is related to

- **The relevance of the GLOBE Program to providing authentic school based assessment (SBA) activities.**
- **Teachers making a conscious decision to integrate the activities of the GLOBE Program in the school curriculum.**
- **Commitment of students who see the relevance of the programme.**
- **Strong hands-on and active student involvement in the process of implementation.**

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